

**IN THE DRAWINGS:**

Figures 1 to 4 were amended to replace the hand written labels as required to comply with 37 CFR 1.121(d) are attached. No changes were made to the subject matter of the figures.

The following is attached:

Replacement Drawing Sheets 1/4 to 4/4 bearing Figures 1 to 4.

**-REMARKS / ARGUMENTS-**

Claims 1 to 13 remain pending in the present application. All claims remain as submitted originally.

**Objection to the drawings under 37 CFR 1.121(d)**

The drawings were formalized to comply with 37 CFR 1.121(d). No changes were made to the subject matter of the figures.

This overcomes the objection to the drawings under 37 CFR 1.121(d).

**Rejection of Claims 1-2, 5-7 and 10-13 under 35 USC §102(b) using Smith (US 4,733,155)**

For anticipation under 35 U.S.C. § 102, the reference "must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." (MPEP §706.02). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Smith describes a method and an apparatus for controlling the speed of an aircraft generator using a frequency signal generated by an alternator of the generator arrangement. The generator speed control is not related to the turbine shaft (10) speed since the input shaft (15) (coupled to the turbine shaft (10) using gear box (12)) is decoupled from the output shaft (21) driving the generator using a continuously variable ratio drive device (20). The ratio is controlled using a control circuit (24) and the frequency signal as a feedback.

Regarding independent claim 1, Smith does not determine the gas turbine shaft speed. It uses a signal from the generator to control the generator speed, which is not related to the gas turbine shaft speed.

Regarding independent claim 6, Smith does not show a processing unit for determining the gas turbine shaft speed. It shows a control circuit using the alternator signal to control the generator speed.

Regarding independent claim 11, Smith does not determine a rotation speed of the turbine shaft nor does it provide a determined rotation speed to an engine controller. It uses a signal from the generator to control the generator speed, which is not related to the gas turbine shaft speed.

Smith therefore does not anticipate Claim 1, 6 and 11 since it does not teach every aspect of the claimed invention either explicitly or impliedly as highlighted in MPEP §706.02 stated above.

Accordingly, withdrawal of the rejection to Claim 1, 6 and 11 is respectfully requested. Claims 2-5 are dependent on claim 1, Claims 7-10 are dependent on claim 6 and Claims 12-13 are dependent from claim 11 and thus are also novel.

With a view to accelerate the prosecution of the present application, the Applicant also submits that Claims 1, 6 and 11 are not obvious having regard to Smith. In Smith, the engine shaft speed is not related to the alternator speed and, also in Smith, determining the alternator speed using a frequency signal for the alternator would not lead to the measurement of the engine shaft speed. The input shaft 15 speed is decoupled from the output shaft 21 speed using a variable ratio drive device (20) and the relation between the alternator speed and the engine shaft speed thus cannot be recovered. Furthermore, the drive device of Smith is essential to control the generator speed, which is an object of Smith's invention. It would therefore not be obvious to a person skilled in the art to modify Smith to obtain the claimed invention.

Rejection of Claims 3-4 and 8-9 under 35 USC §103(a) using Smith, in view of Wakao (US 6,035,960)

As stated in MPEP section 2142, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there

must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Wakao describes a motorized power steering control device to use in a vehicle, the power steering force being provided by an electrical motor. The electrical motor control is made using vehicle speed. The vehicle speed is determined using a signal from an alternator (13) connected to the vehicle engine. The vehicle engine speed is calculated using a ratio representative of the relationship between the vehicle engine speed (N) and the pulsation frequency ( $\Omega$ ) of the alternator (13).

Neither Wakao nor Smith determines a gas turbine shaft speed. Smith uses a signal from the generator to control the generator speed, which is not related to the gas turbine shaft speed. Wakao does not show or use a gas turbine engine and there is thus no turbine shaft speed to determine. Furthermore, there is no need for a motorized power steering control in a vehicle that uses a gas turbine engine like, for instance, an aircraft.

Additionally, Wakao's method of calculating the engine speed from a ratio representative of the relationship between the vehicle engine speed and the pulsation frequency of the alternator cannot be useful to calculate the turbine shaft speed from Smith's generator speed because the relationship between the generator speed and the engine speed is not constant in Smith's configuration (input shaft (15) being decoupled from the output shaft (21)).

Furthermore, nothing in Wakao or Smith suggests or motivates a combination of both references as stated in MPEP section 2142 shown above.

Claims 3-4 and 8-9 are hence not obvious having regard to Smith in view of Wakao.

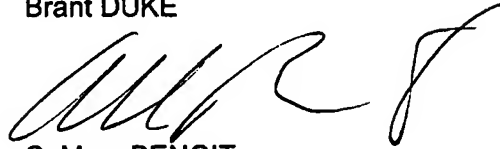
In view of the foregoing, withdrawal of the rejection to Claim 3-4 and 8-9 is respectfully requested.

It is believed that claims 1-13 are allowable over the prior art, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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Encl. Replacement drawings sheets 1/4 to 4/4